

### ABSTRACT

The invention relates to oscillation detection and, more particularly, concerns a method and apparatus for identifying oscillation in a signal due to feedback, permitting appropriate action to be taken to suppress the oscillation. The method involves using an FFT device or similar to convert a signal at each of a ~~series~~series of successive time windows into the frequency domain, calculating, for each of a plurality of frequency bands, the change in signal phase from a ~~time~~time window to a subsequent ~~time~~time window, and comparing, for some or all of said frequency bands, the results of the calculation step to one or more defined criteria to provide a measure of whether oscillation due to feedback is present in the signal. For additional discrimination, the change in signal amplitude from a time window to a subsequent time window may also be calculated for each of the frequency bands, and the result compared with one or more further defined criteria. The invention has particular application in hearing aid devices.